



STATE OF IDAHO  
DEPARTMENT OF  
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706-1255 • (208) 373-0502

Dirk Kempthorne, Governor  
C. Stephen Allred, Director

November 27, 2002

**Certified Mail No. 7099 3220 0009 1975 6810**

Craig A. Puljan  
Plant Manager  
Ash Grove Cement Co.  
230 Cement Road  
Inkom, ID 83245

RE: AIRS Facility No. 005-00004, Ash Grove Cement Co., Inkom  
Final Tier II Operating Permit and Permit to Construct

Dear Mr. Puljan:

The Department of Environmental Quality (Department) is issuing modified Tier II Operating Permit and Permit to Construct No. 005-00004 for the Ash Grove Cement facility in accordance with IDAPA 58.01.01.400 - 407 and 58.01.01.200 - 228, respectively.

The enclosed permit is effective immediately and is based on the information contained in your permit application and relevant comments received during the public comment period. The expiration date of the permit has been extended one year to allow for the processing of your upcoming Tier II permit application required to be submitted by December 9, 2002.

You, as well as any other entity, may have the right to appeal this final agency action pursuant to IDAPA 58.01.23, *Rules of Administrative Procedure Before the Board of Environmental Quality*. A petition may be filed with the Hearings Coordinator, Department of Environmental Quality, 1410 N. Hilton, Boise, ID 83706-1255 within 35 days of the date of this decision. However, prior to filing a petition for a contested case, the Department encourages you to call Mike Simon at (208) 373-0502 to address any questions or concerns you may have with the enclosed permit.

Sincerely,



Katherine B. Kelly  
Administrator  
Air Quality Division

Enclosures

KK/ZK/sm T2-010313 G:\Air Quality\Stationary Source\SS Ltd\T2\Ash Grove\Final Prep\P-010313 Permit Letter.Doc

cc: Tiffany Floyd, Pocatello Regional Office  
Laurie Kral, EPA Region 10



**Air Quality  
TIER II OPERATING PERMIT  
and  
PERMIT TO CONSTRUCT**

State of Idaho  
Department of Environmental Quality

PERMIT NO.: 005-00004

AQCR: 61

CLASS: A

SIC: 3241

ZONE: 12

UTM COORDINATE (km): 397.6 , 4738.6

**1. PERMITTEE**

Ash Grove Cement Co.

**2. PROJECT**

PM<sub>10</sub> SIP operating permit and permit to construct

**3. MAILING ADDRESS**

230 Cement Road

**CITY**

Inkom

**STATE**

ID

**ZIP**

83245-1543

**4. FACILITY CONTACT**

Craig Puljan

**TITLE**

Plant Manager

**TELEPHONE**

(208) 775-3351, EXT. 12

**5. RESPONSIBLE OFFICIAL**

Craig Puljan

**TITLE**

Plant Manager

**TELEPHONE**

(208) 775-3351, EXT. 12

**6. EXACT PLANT LOCATION**

Township 7S, Range 36, Section 28

**COUNTY**

Bannock

**7. GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS**

Portland Cement Production

**8. PERMIT AUTHORITY**

This permit to construct and Tier II operating permit is issued according to the *Rules for the Control of Air Pollution in Idaho*, IDAPA 58.01.01.200-228 and IDAPA 58.01.01.400-470, respectively. This permit pertains only to emissions of air contaminants regulated by the state of Idaho and to the sources specifically allowed to be operated by this permit. Only the terms and conditions pertaining to Tier II operating permit requirements are subject to the expiration date of this permit.

This permit is not transferable to another person, place, or piece or set of equipment and will expire if construction has not begun within two years of its issue date or if construction is suspended for one year.

This permit has been granted on the basis of design information presented in the application and the Idaho Department of Environmental Quality's technical analysis of the supplied information. Changes in design or equipment that result in any change in the nature or amount of emissions may be considered a modification. Modifications are subject to Department review in accordance with IDAPA 58.01.01.200.

  
KATHERINE B. KELLY, ADMINISTRATOR, AIR QUALITY DIVISION  
DEPARTMENT OF ENVIRONMENTAL QUALITY

DATE ISSUED: NOVEMBER 27, 2002

DATE EXPIRES: DECEMBER 8, 2003

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## ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURES

AAC	Acceptable Ambient Concentration for Non-Organics
AACC	Acceptable Ambient Carcinogenic Concentration
acfm	actual cubic feet per minute
AIRS	Aerometric Information Retrieval System
AFS	AIRS Facility System
AQCR	Air Quality Control Region
Btu	British thermal unit(s)
CAA	Clean Air Act
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
dscf	dry standard cubic foot or feet
EF	emission factor
EPA	Environmental Protection Agency
FD	fugitive dust
FE	fugitive emissions
ft	foot or feet
ft <sup>2</sup> G	square foot or feet graphite
gpm	gallons per minute
gr	grain(s)
gr/dscf	grains per dry standard cubic foot
HAPs	Hazardous Air Pollutants
HEPA	High-Efficiency Particulate Air
hr	hour(s)
IDAPA	A numbering designation for all administrative rules in Idaho promulgated under the Idaho Administrative Procedures Act
in.	inch(es)
ISCST3	Industrial Source Complex Short Term 3
kg	kilogram
kj	kilojoules
km	kilometers
kW	kilowatts
lb/hr	pound per hour
m	meter(s)
m <sup>3</sup>	cubic meter(s)
mg/m <sup>3</sup>	milligrams per cubic meter
µm	micrometers
MACT	Maximum Achievable Control Technology
MD	metal debris
min	minute(s)
MMBtu/hr	million British thermal units per hour
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO <sub>2</sub>	nitrogen dioxide
NO <sub>x</sub>	nitrogen oxides
NSPS	New Source Performance Standards
O <sub>3</sub>	ozone
%	percent
Pb	lead
PCBs	polychlorinated biphenyls
PM	particulate matter
PM <sub>10</sub>	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PSD	Prevention of Significant Deterioration

PTC	permit to construct
ppm	parts per million
s	second(s)
SCC	Source Classification Code
SCF	standard cubic feet
SIC	Standard Industrial Classification
SO <sub>2</sub>	sulfur dioxide
TAP	Toxic Air Pollutant
T/yr	tons per year
TSP	total suspended particulates
U.S.	United States
VOC	volatile organic compound
Wt%	percent by weight
yr	year(s)

**AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No. 005-00004**

Permittee: Ash Grove Cement Company

Date Issued: November 27, 2002

Location: Inkom, Idaho

Date Expires: December 8, 2003

**1. PERMIT SCOPE****Purpose**

- 1.1 This Tier II operating permit and permit to construct is a facility-wide PM<sub>10</sub> SIP operating permit that includes previously issued permits to construct. This permit is issued as a modification to the December 8, 1997 Tier II operating permit and is not a renewal. The expiration date of this permit is extended one year to allow for the processing of a required permit application according to the requirements of the June 10, 2002 consent order.
- 1.2 This permit incorporates and replaces the following permits:
- Tier II Operating Permit No. 055-00004, PM<sub>10</sub> SIP Operating Permit, issued December 8, 1997
  - PTC No. 055-00004, Dust Scoop System, Kiln No. 1, issued May 17, 1999
  - PTC No. 005-00004, No. 1 and No. 2 Clinker Coolers and Clinker Handling System, and Clinker Reclaim, issued January 29, 1999
- 1.3 This permit incorporates modifications set forth in the June 10, 2002, consent order.

**Regulated Sources**

- 1.4 Table 1.1 below lists all sources of emissions that are regulated in this permit.

**Table 1.1 SUMMARY OF REGULATED SOURCES**

Permit Sections	Source Description	Emissions Control(s)
2	Drilling, blasting, and dozing	Uncontrolled
3	Quarried raw materials receiving, crushing, and storage	Enclosure or water spray
4	Iron ore receiving, crushing, and storage	Enclosure or water spray
5	Silica receiving, crushing, and storage	Enclosure or water spray
6	Gypsum receiving, crushing, and storage	Enclosure or water spray
7	Storage piles	Uncontrolled
8	Silo withdrawal, conveying, and storage	Enclosure or process water
9	No. 1 and No. 2 rotary kilns	Multiclone and ESP in series
10	No. 1 and No. 2 clinker coolers and clinker handling system	Baghouses 1, 2, and 3
11	Clinker reclaim	Enclosure and Baghouses 4, 5, and 6
12	Finish grinding and associated handling	Enclosure and Baghouses 7, 8, and 9
13	Cement loadout	Baghouses 9 and 10
14	Coal handling	Enclosure or uncontrolled
15	Cement kiln dust handling	Enclosure or Baghouse 11
16	Unpaved roads	Water
17	Paved roads	Sweeping

**AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No. 005-00004****Permittee:** Ash Grove Cement Company**Date Issued:** November 27, 2002**Location:** Inkom, Idaho**Date Expires:** December 8, 2003**2. DRILLING, BLASTING, AND DOZING****1. Source Description****1.1 Process Description**

Holes are drilled into limestone for the placement of explosives. The explosives are detonated, and the blast loosens the rock so that a dozer can move the blasted material.

**1.2 Control Description**

Emissions associated with the drilling, blasting, and dozing of limestone are uncontrolled.

**1.3 Equipment Specifications****1.3.1 Drill**

Manufacturer:	Gardner Denver
Model:	RDC16B
Serial Number:	SN16C1261

**1.3.2 Dozers****2. Emission Limits****2.1 Fugitive Emissions**

The particulate matter (PM) and particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM<sub>10</sub>) shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651 and shall not exceed the pound per hour (lb/hr) or ton per year (T/yr) values listed in Appendix B of this permit.

**3. Monitoring Requirements**

3.1 The permittee shall measure the following parameters:

3.2 Tons of rock blasted;

3.3 A report will be made on each blast performed; and

3.4 Dozer operating hours per day.

**4. Reporting Requirements**

The information requested in Permit Condition 3.1 shall be maintained on record by the permittee for a minimum period of two years and made available to the Department representatives upon request.

**AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No. 005-00004****Permittee:** Ash Grove Cement Company**Date Issued:** November 27, 2002**Location:** Inkorn, Idaho**Date Expires:** December 8, 2003**3. QUARRIED RAW MATERIALS RECEIVING, CRUSHING, AND STORAGE****1. Source Description****1.1 Process Description**

Quarried clay, shale, and limestone are reduced in size by crushing and screening. Quarried clay, shale, and limestone are fed onto a feed pad that transfers the material to a jaw crusher for size reduction. The crushed raw material is transferred to the No.1 screen by inclined belts. Raw material that cannot be screened does not pass through the screen is reintroduced to the system by transferring it to a hammermill for crushing and reconveying it to the screen. Material passing the screen is transferred to a cross country belt that either a) recycles the stockpiled rock through the entire crushing and screening process by reintroducing the material at the jaw crusher, or b) transfers it to belts which place the material in the raw silos from which it is conveyed to the raw mill.

**1.2 Control Description**

Emissions associated with the transport of limestone, clay, and shale from the front-end loader to the feeder are controlled by a building open at one end. Emissions associated with the transport of the raw materials from the No.1 inclined belt to the No.2 inclined belt are controlled by a shed covering the transfer point. All transfer points after the jaw crusher are controlled by water spray or by moisture retained by the raw materials from the water spray or residual moisture inherent in the rock. Emissions associated with the following transfer points are controlled by an enclosure:

Feeder to Jaw Crusher

Jaw Crusher to Inclined Belt

Screen No. 2 Inclined Belt to Screen No. 1

Screen No. 1 to Cross Country Belt

Screen No. 1 to Hammermill

Hammermill to No. 1 Inclined Belt

Belt C to Silos

**1.3 Equipment Specifications****1.3.1 Front-end Loader****1.3.2 Feeder (Feed Pad)****1.3.3 Jaw Crusher -Size 160**

Manufacturer:	Kue Ken
Model:	Model 160
Serial Number:	Serial No. 16016407



**AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No. 005-00004**

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**Date Issued:** November 27, 2002

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1.3.4 No. 1 Inclined Belt

1.3.5 No. 2 Inclined Belt

1.3.6 No. 1 Screen

Manufacturer: Link Belt  
Model: Model CA53  
Serial Number: Serial No. CA25125

1.3.7 Hammermill

Manufacturer: Pennsylvania  
Model: Model CB 1144  
Serial Number: Serial No. 2460

1.3.8 Cross Country Belt

1.3.9 Belt B

1.3.10 Belt C

1.3.11 Discharge Chute

**2. Emission Limits**

**2.1 Fugitive Emissions**

2.1.1 Fugitive emissions of PM and PM<sub>10</sub> shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651, and shall not exceed the pound per hour or ton per year values listed in Appendix B of this permit.

**3. Monitoring Requirements**

3.1 The permittee shall record the hours of operation per day of the water spray.

3.2 The permittee shall record the tons of raw material handled by raw material receiving, crushing, and storage each day.

3.3 The permittee shall record the hours of operation per day of raw material receiving, crushing, and storage.

**4. Operating Requirements**

**4.1 Process Rate**

The process rate shall not exceed 200 tons of limestone, clay, and shale per hour on a monthly average basis. Annual process rate shall not exceed 435,708 tons of limestone, clay, and shale per year.

**AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No. 005-00004**

**Permittee:** Ash Grove Cement Company

**Date Issued:** November 27, 2002

**Location:** Inkom, Idaho

**Date Expires:** December 8, 2003

**5. Reporting Requirements**

The permittee shall record, in a daily report, the information requested in Permit Conditions 3.1, 3.2, and 3.3. These records shall be maintained on file by the permittee for a minimum period of two years and made available to Department representatives upon request.

**AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No. 005-00004****Permittee:** Ash Grove Cement Company**Date Issued:** November 27, 2002**Location:** Inkorn, Idaho**Date Expires:** December 8, 2003**4. IRON ORE RECEIVING, CRUSHING, AND STORAGE****1. Source Description****1.1 Process Description**

Iron ore from an outside source is belly/end dumped and stockpiled in the quarry. A front-end loader transfers the stockpiled iron ore onto a feed pad for transfer to a jaw crusher. The iron ore is crushed and conveyed to the No. 1 screen. The screened iron ore is then conveyed to the iron ore silo for storage. From the silo, the iron ore is conveyed to the raw mill.

**1.2 Control Description**

Emissions associated with the transport of iron ore from the front-end loader to the feeder are controlled by a building open at one end. Emissions associated with the transport of iron ore from the No.1 inclined belt to the No. 2 inclined belt are controlled by a partially enclosed shed covering the transfer point. All transfer points after the jaw crusher are controlled by water spray or by moisture retained by the iron ore from the water spray or residual moisture inherent in the rock. Emissions associated with the following transfer points are controlled by an enclosure:

Feeder to Jaw Crusher

Jaw Crusher to Inclined Belt

No. 2 Inclined Belt to Screen No. 1

Screen No. 1 to Cross Country Belt

Screen No. 1 to Hammermill

Hammermill to No. 1 Inclined Belt

Belt C to Silos

**1.3 Equipment Specification**

Same equipment listed in Section 1.3 Quarried Raw Materials, Receiving, Crushing, and Storage.

**2. Emission Limits****2.1 Fugitive Emissions**

2.1.1 The PM and PM<sub>10</sub> shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651, and shall not exceed the pound per hour or ton per year values listed in Appendix B of this permit.

**2.2 Visible Emissions**

2.2.1 Visible emissions from conveyor transfer points shall not exceed 10 % opacity.

[40 CFR 60.62(c)]

**AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No. 005-00004**

**Permittee:** Ash Grove Cement Company

**Date Issued:** November 27, 2002

**Location:** Inkom, Idaho

**Date Expires:** December 8, 2003

**3. Monitoring Requirements**

- 3.1 The permittee shall record the hours of operation per day of the water spray.
- 3.2 The permittee shall record the tons of iron ore handled by iron ore receiving, crushing, and storage each day.
- 3.3 The permittee shall record the hours of operation per day of iron ore receiving, crushing, and storage.

**4. Operating Requirements**

**4.1 Process Rate**

The process rate shall not exceed 200 tons of iron ore per hour on an average monthly basis. Annual process rate shall not exceed 7,000 tons of iron ore per year.

**5. Reporting Requirements**

The permittee shall record, in a daily report, the information requested in Permit Conditions 3.1, 3.2, and 3.3. These records shall be maintained on file by the permittee for a minimum period of two years and made available to Department representatives upon request.

**AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No. 005-00004****Permittee:** Ash Grove Cement Company**Date Issued:** November 27, 2002**Location:** Inkom, Idaho**Date Expires:** December 8, 2003**5. SILICA RECEIVING, CRUSHING, AND STORAGE****1. Source Description****1.1 Process Description**

Silica from an outside source is belly/end dumped and stockpiled in the quarry. A front-end loader transfers the stockpiled silica onto a feed pad for transfer to a jaw crusher. The silica is crushed and conveyed to the No. 2 screen. Silica that cannot be screened is recycled through the system by transferring it to a cone crusher for crushing and reconveying it to the No.2 screen. The silica passing the screen is conveyed by a cross country belt that either a) recycles the stock piled material through the entire crushing and screening process by reintroducing the crushed material at the feed pad, or b) transfers it to belts which place the material in the raw silos. From the raw silos, the silica is conveyed to the raw mill by a feed belt.

**1.2 Control Description**

Emissions associated with the transport of silica from the front-end loader to the feeder are controlled by a building open at one end. Emissions associated with the transport of silica from the No.1 inclined belt to the No.2 inclined belt are controlled by a shed covering the transfer point. All transfer points after the jaw crusher are controlled by water spray or by moisture retained by the silica from the water spray or residual moisture inherent in the rock. Emissions associated with the following transfer points are controlled by an enclosure:

Feeder to Jaw Crusher

Jaw Crusher to No. 1 Inclined Belt

No. 1 Inclined Belt to No. 2 Inclined Belt

No. 2 Inclined Belt to No. 3 Inclined Belt

No. 3 Inclined Belt to Screen No. 2

Screen No. 2 to Cross Country Belt

Screen No. 2 to Cone Crusher

Cone Crusher to No. 4 Inclined Belt

No. 4 Inclined Belt to No. 2 Inclined Belt

Belt C to Silos

**AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No. 005-00004****Permittee:** Ash Grove Cement Company**Date Issued:** November 27, 2002**Location:** Inkom, Idaho**Date Expires:** December 8, 2003

The following transfer points are controlled only by moisture retained by the silica from the water spray or residual moisture inherent in the rock:

Cross Country Belt to Belt B

Belt B to Belt C

Cross Country Belt to Discharge Chute

Discharge Chute to Ground

**1.3 Equipment Specifications**

Same equipment listed in Section 1.3 Quarried Raw Materials, Receiving Crushing, and Storage with the exception that the following equipment shall be used instead of the No.1 screen and hammermill listed in Sections 1.3.6 and 1.3.7:

1.3.1 No. 3 Inclined Belt

1.3.2 No. 4 Inclined Belt

1.3.3 No. 2 Silica Screen

Manufacturer: Hewitt Robins  
Model: MS - 9  
Serial Number: 1120

1.3.4 Cone Crusher

Manufacturer: Telesmith  
Model: 48S Shop 8504

**2. Emission Limits****2.1 Fugitive Emissions**

2.1.1 Fugitive emissions of PM and PM<sub>10</sub> shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651, and shall not exceed the pound per hour or ton per year values listed in Appendix B of this permit.

**3. Monitoring Requirements**

3.1 The permittee shall record the hours of operation per day of the water spray.

3.2 The permittee shall record the tons of silica handled by silica receiving, crushing, and storage each day.

3.3 The permittee shall record the hours of operation per day of silica receiving, crushing, and storage.

**AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No. 005-00004**

**Permittee:** Ash Grove Cement Company

**Date Issued:** November 27, 2002

**Location:** Inkom, Idaho

**Date Expires:** December 8, 2003

**4. Operating Requirements**

**4.1 Process Rate**

The process rate shall not exceed 96 tons of silica per hour on an average monthly basis. Annual process rate shall not exceed 43,571 tons of silica per year.

**5. Reporting Requirements**

The permittee shall record, in a daily report, the information requested in Permit Conditions 3.1, 3.2, and 3.3. These records shall be maintained on file by the permittee for a minimum period of two years and made available to Department representatives upon request.

## **6. GYPSUM RECEIVING, CRUSHING, AND STORAGE**

### **1. Source Description**

#### **1.1 Process Description**

Gypsum from an outside source is belly/end dumped and stockpiled in the quarry. A front-end loader transfers the stockpiled gypsum onto a feed pad for transfer to a jaw crusher. The gypsum is crushed and conveyed to the No. 1 screen. Gypsum that cannot be screened is recycled through the system by transferring it to a hammermill for crushing, and reconveying it to the No. 1 screen. The screened gypsum is then conveyed by a cross-country belt to a gypsum belt that transfers it to a gypsum bin for storage. An overhead crane transfers the gypsum into the gypsum bin, which feeds it to the cement mill for further processing.

#### **1.2 Control Description**

Emissions associated with the transport of gypsum from the front-end loader to the feeder are controlled by a building open at one end. Emissions associated with the transport of gypsum from the No.1 inclined belt to the No. 2 inclined belt are controlled by a shed covering the transfer point. All transfer points after the jaw crusher are controlled by water spray or by moisture retained by the gypsum from the water spray or residual moisture inherent in the rock. Emissions associated with the following transfer points are controlled by an enclosure:

Feeder to Jaw Crusher

Jaw Crusher to No. 1 Inclined Belt

No. 1 Inclined Belt to No. 2 Inclined Belt

No. 2 Inclined Belt to Screen No. 1

Screen No. 1 to Cross Country Belt

Screen No. 1 to Hammermill

Hammermill to No. 1 Inclined Belt

Belt C to Silos

#### **1.3 Equipment Specifications**

Same equipment listed in Section 1.3 Quarried Raw Materials, Crushing, Receiving, and Storage with the addition of the following:

1.3.1 Gypsum Belt

1.3.2 Gypsum Bin

1.3.3 Overhead Crane



**AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No. 005-00004**

**Permittee:** Ash Grove Cement Company

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**Date Expires:** December 8, 2003

**2. Emission Limits**

**2.1 Fugitive Emissions**

- 2.1.1 The PM and PM<sub>10</sub> shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651, and shall not exceed the pound per hour or ton per year values listed in Appendix B of this permit.

**3. Monitoring Requirements**

- 3.1 The permittee shall record the hours of operation per day of the water spray.
- 3.2 The permittee shall record the tons of gypsum handled by gypsum receiving, crushing, and storage each day.
- 3.3 The permittee shall record the hours of operation per day of gypsum receiving, crushing, and storage.

**4. Operating Requirements**

**4.1 Process Rate**

The process rate shall not exceed 200 tons of gypsum per hour on an average monthly basis. Annual process rate shall not exceed 22,737 tons of gypsum per year.

**5. Reporting Requirements**

The permittee shall record, in a daily report, the information requested in Permit Conditions 3.1, 3.2, and 3.3. These records shall be maintained on file by the permittee for a minimum period of two years and made available to Department representatives upon request.

**AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No. 005-00004**

**Permittee:** Ash Grove Cement Company

**Date Issued:** November 27, 2002

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**Date Expires:** December 8, 2003

**7. STORAGE PILES**

**1. Source Description**

**1.1 Process Description**

Limestone (High and Low), gypsum, iron ore, silica, and cement kiln dust are stored in the quarry in piles. Coal is stored at the plant in a pile.

**1.2 Control Description**

Emissions from the limestone (High and Low), gypsum, iron ore, coal, silica, and cement kiln dust storage piles are uncontrolled.

**2. Emission Limits**

**2.1 Fugitive Emissions**

2.1.1 The PM and PM<sub>10</sub> shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651, and shall not exceed the pound per hour or ton per year values listed in Appendix B of this permit.

**3. Operating Requirements**

3.1 The limestone (high) and limestone (low) storage piles shall be limited to a footprint area of four acres.

3.2 The gypsum storage pile shall be limited to a footprint area of one half acre.

3.3 The iron ore storage pile shall be limited to a footprint area of four-tenths acre.

3.4 The coal storage pile shall be limited to a footprint area of one acre.

3.5 The silica storage pile shall be limited to a footprint area of one acre.

3.6 The active cement kiln dust storage pile shall be limited to a footprint area of one acre.

**AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No. 005-00004**

Permittee: Ash Grove Cement Company

Date Issued: November 27, 2002

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Date Expires: December 8, 2003

**8. SILO WITHDRAWAL, CONVEYING, AND STORAGE****1. Source Description****1.1 Process Description**

Limestone, silica, and iron ore are transferred from silo storage to Mill No.4 (Raw Mill). Mill No.4 processes the limestone, silica, and iron ore with water into a raw meal (slurry). Mill No.3 may be used as a back-up raw mill only when Mill No.4 is not operating.

**1.2 Control Description**

Emissions associated with the transfer of limestone, silica, and iron ore from silo storage to the raw mill are controlled by being building enclosed. Emissions associated with the processing of limestone, silica, and iron ore are controlled by the water used in the process.

**1.3 Equipment Specifications****1.3.1 Silo Feeder****1.3.2 Feed Belt****1.3.3 Mill No. 4 (Raw Mill)****1.3.4 Mill No. 3 (Auxiliary Raw Mill)****2. Emission Limits****2.1 Fugitive Emissions**

2.1.1 The PM and PM<sub>10</sub> shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651, and shall not exceed the pound per hour or ton per year values listed in Appendix B of this permit.

**3. Monitoring Requirements**

3.1 The permittee shall record the tons of limestone, silica, and iron ore transported to and processed by the raw mill daily.

**4. Operating Requirements****4.1 Processing Limit**

The process rate of the raw mill shall not exceed 60 tons of raw meal per hour on an average monthly basis. Annual process rate shall not exceed 450,000 tons of raw meal per year.

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**5. Reporting Requirements**

The permittee shall record, in a daily report, the information requested in Permit Condition 3.1. These records shall be maintained on file by the permittee for a minimum period of two years and made available to Department representatives upon request.

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The No. 1 and No. 2 rotary kilns process clinker for the production of Portland cement. The raw materials used in this process include limestone, silica, iron ore, and shale. Five fuels are used to fire the kilns: natural gas, used oil, petroleum coke, whole tire/tire derived fuel, and coal. In the kilns the combustion gases flow countercurrent to the clinker flow and exit through the emission control equipment.

**1.2 Control Description**

Each kiln is controlled by a multiclone and electrostatic precipitator (ESP) in series. High temperatures and long residence time in the kilns have been demonstrated to create a destruction and removal efficiency (DRE) greater than 99.99% for organic compounds. The cement kiln process has shown that over 99% of the metals chemically recombine into the complex compounds that make up the matrix of clinker.

**1.3 Equipment Specifications****1.3.1 No. 1 Kiln**

Manufacturer:	Allis Chalmers
Speed:	0.9 rotations per minute
Rated Heat Capacity:	7.7 MMBtu/Ton of clinker
Burner Type:	Horizontally fired
Kiln Diameter:	10.0 feet
Kiln Length:	200 feet
Operating Temperature, Front/Back	3000/700°F

**1.3.2 No. 1 Kiln Multiclone**

Manufacturer:	F.L. Smidth
Efficiency:	67.1% for particulates
Pressure Drop:	2 inches H <sub>2</sub> O

**1.3.3 No. 1 Kiln ESP**

Manufacturer:	Joy Western
Efficiency:	99.8% for particulates
Gas Velocity:	41.0 feet per second

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**1.3.4 No. 2 Kiln**

Manufacturer: F.L. Smidth  
Speed: 1.3 rotations per minute  
Rated Heat Capacity: 6.8 MMBtu/Ton of clinker  
Burner Type: Horizontally fired  
Kiln Diameter: 9.5 feet  
Kiln Length: 320 feet  
Operating Temperature, Front/Back: 3000/440°F

**1.3.5 No. 2 Kiln Multiclone**

Manufacturer: F.L. Smidth  
Efficiency: 75.8% for particulates  
Pressure Drop: 2 inches H<sub>2</sub>O

**1.3.6 No. 2 Kiln ESP**

Manufacturer: Joy Western  
Efficiency: 99.4% for particulates  
Gas Velocity: 42.3 feet per second

**1.4 Stack Specifications****1.4.1 The No. 1 Kiln stack is designed to the following specifications:**

Height: 74 feet  
Exit Dimensions: 7.0 feet by 4.0 feet  
Average Volumetric Flow Rate: 69,000 actual cubic feet per minute  
Exit Temperature: 400 to 550°F

**1.4.2 The No. 2 Kiln stack is designed to the following specifications:**

Height: 74 feet  
Exit Diameter: 7.0 feet by 4.0 feet  
Average Volumetric Flow Rate: 70,973 actual cubic feet per minute  
Exit Temperature: 300 to 450°F

**2. Emission Limits****2.1 No. 1 Kiln and No. 2 Kiln (Requirements for each kiln)**

2.1.1 Emissions of PM, PM<sub>10</sub> (IDAPA 58.01.01.006.71), sulfur dioxide (SO<sub>2</sub>), oxides of nitrogen (NO<sub>x</sub>), volatile organic compounds (VOCs), total lead, and benzo(a)pyrene (BAP) shall not exceed any corresponding emission limit listed in Appendix A.

2.1.2 Carbon monoxide (CO) emissions shall not exceed any corresponding emission limit listed in Appendix A.

2.1.3 Visible emissions shall not exceed 20% opacity.

[Consent Order, Condition 9.A, June 10, 2002; 40 CFR 60 Subpart F; IDAPA 58.01.01.625]

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- 2.1.4 Total organic Hazardous Air Pollutant emissions shall not exceed 9.9 tons per year total emissions for both kilns determined on a 12-month rolling average.

[Consent Order, Condition 21.G, June 10, 2002]

- 2.1.5 No owner or operator subject to the provisions of 40 CFR 60 Subpart F shall cause to be discharged to the atmosphere from any kiln any gases which contain PM in excess of 0.15 kg per metric ton of feed (dry basis) to the kiln (0.30 lb per ton).

[Consent Order, Conditions 9.A, and 21.C, June 10, 2002]

### **3. Monitoring Requirements**

- 3.1.1 Daily summary of the amount of material fed to each kiln (dry basis); and,
- 3.1.2 Daily summary of the type and amount of fuels used. 3.2 The permittee shall install, calibrate, maintain, and operate monitoring devices for the measurement of operating parameters for each field in each chamber of the No.1 and No.2 kiln ESPs. The following operating parameters shall be monitored and recorded once per day while each kiln is operating:
- 3.2.1 Primary voltage;
- 3.2.2 Primary current;
- 3.2.3 Secondary voltage;
- 3.2.4 Secondary current;
- 3.2.5 Pressure drop;
- 3.2.6 Rapper intensity and frequency; and
- 3.2.7 The time when these parameters were monitored.
- 3.3 When used oil is being used as fuel, the permittee shall have the used oil certified by the supplier and abide by the record keeping and analytical requirements, as referenced under 40 CFR 279.
- 3.4 When coal is being used as fuel, the permittee shall have the coal sampled and analyzed by the supplier for total sulfur and shall maintain records of this data on a monthly basis.
- 3.5 The permittee shall conduct a performance test on Kiln No.1 exhaust stack to verify compliance with visible emissions, total PM, VOC, and CO emission limits in Permit Condition 2. The amount of whole tire/tire derived fuel combusted shall be measured to demonstrate compliance with Permit Conditions 4.1.5.1.
- 3.5.1 The following operating data shall be recorded during the performance test:
- 3.5.1.1 Amount of material fed (dry basis);
- 3.5.1.2 Type and amount of fuels used; and
- 3.5.1.3 Multiclone pressure drop.

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- 3.5.2 During the performance test, the following operating parameters for each field in each chamber of the No. 1 ESP shall be recorded:
- 3.5.2.1 Primary voltage;
  - 3.5.2.2 Primary current;
  - 3.5.2.3 Secondary voltage;
  - 3.5.2.4 Secondary current;
  - 3.5.2.5 Pressure drop; and
  - 3.5.2.6 Rapper intensity and frequency.
- 3.6 Ash Grove shall install, calibrate, and operate a continuous emissions monitoring system (CEMS) to monitor and record the rate of NO<sub>x</sub> emissions from the electrostatic precipitator (ESP) stack on Kilns No. 1 and 2. The NO<sub>x</sub> CEMS shall use a span appropriate for the actual NO<sub>x</sub> concentration in the emissions from Kilns No. 1 and 2. The NO<sub>x</sub> CEMS shall be used directly for determining compliance with NO<sub>x</sub> emissions limitations. In addition, Ash Grove shall comply with the following terms and conditions as related to the NO<sub>x</sub> CEMS:
- 3.6.1 The NO<sub>x</sub> CEMS shall be operated in compliance with all applicable provisions of 40 CFR 60.13.
  - 3.6.2 The installation and initial performance evaluation of the NO<sub>x</sub> CEMS shall be done in accordance with 40 CFR 60, Appendix B, and Performance Specification 2. Ash Grove shall conduct the initial performance evaluation no later than 180 days from the effective date of this Consent Order. The results of the initial performance evaluation shall be submitted for Department approval within 30 days of completion of the evaluation. If the Department does not find the results of the initial performance evaluation acceptable, Ash Grove shall repeat the performance evaluation. The initial performance evaluation shall be completed to the Department's satisfaction no later than January 6, 2003.
  - 3.6.3 The NO<sub>x</sub> CEMS shall comply with the quality assurance requirements specified in 40 CFR 60, Appendix F.
  - 3.6.4 Ash Grove shall maintain a file containing measurement data and related information for the NO<sub>x</sub> CEMS. The data and information in the file shall include, but not be limited to, all CEMS output data, copies of all performance evaluation reports, daily calibration drift check data, written quality control procedures, documentation of all adjustments and maintenance on the NO<sub>x</sub> CEMS and copies of all information required to be submitted to the Department regarding the NO<sub>x</sub> CEMS. The contents of the file shall be recorded in a permanent form suitable for inspection and shall be retained at the facility for at least five years following the date on which the data or information were recorded. The file shall be made available to Department representatives upon request.
- [Consent Order, Condition 7, 6/10/02]**
- 3.7 Ash Grove shall install, calibrate, and operate a CEMS to monitor and record the rate of CO emissions from the ESP stack on Kilns No. 1 and 2. The CO CEMS shall use a span appropriate for the actual CO concentration in the emissions from Kilns No. 1 and 2. The CO CEMS shall be used directly for determining compliance with CO emissions. In addition, Ash Grove shall comply with the following terms and conditions as related to the CO CEMS.



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- 3.7.1 The CO CEMS shall be operated in compliance with the applicable provisions of 40 CFR 60.13.
- 3.7.2 The installation and initial performance evaluation of the CO CEMS shall be done in accordance with 40 CFR 60, Appendix B, and Performance Specification 4. Ash Grove shall conduct the initial performance evaluation no later than 180 days from the effective date of this Consent Order. The results of the initial performance evaluation shall be submitted for Department approval within 30 days of completion of the evaluation. If the Department does not find the results of the initial performance evaluation acceptable, Ash Grove shall repeat the performance evaluation. The initial performance evaluation shall be completed to the Department's satisfaction no later than January 6, 2003.
- 3.7.3 The CO CEMS shall comply with the quality assurance requirements specified in 40 CFR 60, Appendix F.
- 3.7.4 Ash Grove shall maintain a file containing measurement data and related information for the CO CEMS. The data and information in the file shall include, but not be limited to, all CEMS output data, copies of all performance evaluation reports, daily calibration drift check data, written quality control procedures, documentation of all adjustments and maintenance on the CO CEMS and copies of all information required to be submitted to the Department regarding the CO CEMS. The contents of the file shall be recorded in a permanent form suitable for inspection and shall be retained at the facility for at least five years following the date on which the data or information were recorded. The file shall be made available to Department representatives upon request.
- [Consent Order, Condition 8, 6/10/02]
- 3.8 Ash Grove shall demonstrate compliance with the kiln PM emissions by following the approved PM Compliance Demonstration Plan. The content of the PM Compliance Demonstration Plan may only be modified with written approval of the Department. Any such approved modification shall not require modification this permit but shall be a fully enforceable term of the permit.
- [Consent Order, Condition 11, 6/10/02]
- 3.9 The permittee shall demonstrate compliance with the organic HAP and VOC emissions limitation by performing annual EPA Method 25A compliance tests on kiln No. 1 and kiln No. 2 while burning tires. The annual compliance tests will develop emissions factors for each kiln to be used during the following 12-month period to determine compliance with the annual emissions limitation for total organic HAPs from the kilns. The first annual test for kiln No. 1 shall be performed within 30 days of the first day tires are burned in kiln No. 1. Annual organic HAP emissions from the kilns shall be determined by the following equations:

Kiln No. 1

Kiln No. 1 organic HAP emissions (T/yr) = [Kiln No. 1 emissions rate (lb/hr, Method 25A)/Kiln No. 1 tire feed rate during test (T/hr)] x [rolling 12 month Kiln No. 1 tire feed (lb/yr)/2000]

Kiln No. 2

Kiln No. 2 organic HAP emissions (T/yr) = [Kiln No.2 emissions rate (lb/hr, Method 25A)/Kiln No. 2 tire feed rate during test (T/hr)] x [rolling 12 month Kiln No. 2 tire feed (lb/yr)/2000]

Total kiln organic HAP emissions (T/yr) = Kiln No. 1 organic HAP emissions (T/yr) + Kiln No. 2 organic HAP emissions (T/yr)

[Consent Order, Condition 21.H, 6/10/02]

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**Date Expires:** December 8, 2003

**4. Operating Requirements**

**4.1 Fuel Usage**

- 4.1.1 The No. 1 and No. 2 kilns shall burn coal, natural gas, whole tire/tire derived fuel, petroleum coke, and used oil which meet the requirements of 40 CFR 279.
- 4.1.2 The tire feed rate to each kiln shall not exceed 500 lb/hr based on a 12-month rolling average.  
[Consent Order, Condition 21.F, 6/10/02]
- 4.1.3 Coal that is burned in the No. 1 and No. 2 kilns shall contain no greater than 1% sulfur by weight in accordance with IDAPA 58.01.01.729.
- 4.1.4 Used oil that is burned in the No. 1 and No. 2 kilns shall not exceed 25% of the kilns' fuel requirement on a Btu basis.
- 4.1.5 Whole tire/tire derived fuel burned in the kilns shall not exceed the following quantity:
  - 4.1.5.1 Twenty-five percent of the No.1 kiln's fuel requirement on a Btu basis, or the percentage of whole tire/TDF burned during the source test conducted to demonstrate compliance with the Section 3.5.
  - 4.1.5.2 Twenty-five percent of the No.2 kiln's fuel requirement on a Btu basis.
- 4.1.6 Used oil and whole tire/tire derived fuel shall not be burned in a kiln while the kiln's ESP is not operating.
- 4.1.7 Test burns shall be required should the permittee propose to combust used oil or whole tire/tire derived fuel at rates greater than those stated in Permit Conditions 4.1.4 and 4.1.5. Department approval shall be required prior to conducting test burns at fueling rates that exceed permitted rates.

**4.2 Process Rates**

- 4.2.1 The No. 1 kiln shall process no more than 15.4 tons of clinker per hour, and the No.2 kiln shall process no more than 19.4 tons of clinker per hour on an average annual basis.

**5. Reporting Requirements**

- 5.1 The permittee shall submit a test protocol for the performance test for kiln No. 1 required in Permit Condition 3.5 to the Department for approval at least 30 days prior to the test date. The performance test reports shall be submitted to EPA, Region X, and the Department within 45 days of the date on which the performance tests are conducted.
- 5.2 The permittee shall record, in a monthly report, the information requested in Permit Conditions 3.1, 3.2, 3.3, and 3.4. This report shall be maintained on file by the permittee for a two year minimum and made available to Department representatives upon request.

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The No. 1 and No. 2 clinker coolers reduce the temperature of clinker received from the No. 1 and No. 2 kilns by air cooling. The clinker handling system transfers clinker from the No. 1 and No. 2 clinker coolers to the clinker storage area, or clinker silos.

**1.2 Control Description**

Emissions associated with all clinker transfer points from the No. 1 kiln to the No. 1 drag chain and from the No. 2 kiln to the No. 2 drag chain are controlled by being enclosed and is under negative pressure being vented through the kilns. Emissions associated with the transfer of clinker from the No. 1 and No. 2 drag chains to the No. 3 drag chain are controlled by being enclosed and by a baghouse (BH1). Emissions associated with the transfer of clinker from the No. 3 drag chain to the No. 1 clinker elevator or to the No. 4 drag chain are controlled by enclosure and a baghouse (BH1). Emissions from the transfer points of the No. 4 drag chain to the No. 2 elevator to the No. 5 drag chain and into storage silos are controlled by being enclosed and by a baghouse (BH2). Emissions associated with the transfer of clinker from the No. 1 elevator to the No. 7 drag chain on to the stacking pipe are controlled by enclosure and by a baghouse (BH1). Emissions from the drag No. 7 stacking pipe to the clinker storage area are controlled by partial enclosure. Emissions of the transfer points from the No. 1 elevator to the stacker belt on to the belt stacker are controlled by enclosure and two baghouses (BH1 and BH3). Partial enclosure and a baghouse (BH3) control emissions of the transfer points from the belt stacker pipe to the clinker storage. Emissions from the No. 1 elevator to the clinker storage area are controlled by partial enclosure.

**1.3 Equipment Specifications****1.3.1 Clinker Cooler No. 1**

Manufacturer: Fuller  
Model: 522

**1.3.2 Drag Chain No. 1****1.3.3 Drag Chain No. 2****1.3.4 Drag Chain No. 3****1.3.5 No. 1 Clinker Elevator****1.3.6 Drag Chain No. 7****1.3.7 Stacker Belt****1.3.8 Belt Stacker****1.3.9 Drag Chain No. 4****1.3.10 No. 2 Elevator**

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1.3.11 Drag Chain No. 5

1.3.12 Clinker Silo No. 1

1.3.13 Clinker Silo No. 2

1.3.14 Clinker Silo No. 3

1.3.15 Baghouse 1 (BH1)

Manufacturer: Fabric Air Systems  
Model: 121-10  
Air-to-Cloth Ratio: 5.91-1

1.3.16 Baghouse 2 (BH2)

Manufacturer: Argo Blower  
Model: 5984-C  
Air-to-Cloth Ratio: 4.94-1

1.3.17 Baghouse 3 (BH3)

Manufacturer: Farr Tenhay  
Model: 8D Mark IV  
Efficiency: 99.8% (PM)

**2. Emission Limits**

2.1 Baghouses BH1, BH2, BH3

2.1.1 The PM and PM<sub>10</sub> particle matter from BH1, BH2, and BH3 shall not exceed the pound per hour or ton per year values listed for each in Appendix A of this permit.

2.1.2 Visible emissions from each baghouse stack listed in Section 1.3 shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60 minute period as required in IDAPA 58.01.01.625 and as determined using the Department's "Procedure's Manual for Air Pollution Control".

**2.2 Fugitive Emissions**2.2.1 Fugitive emissions of PM and PM<sub>10</sub> shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651, and shall not exceed the pound per hour (or ton per year values listed in Appendix B of this permit.**2.3 Clinker Storage, Conveyor Transfer Points, and Bulk Loading and Unloading Systems Opacity Limit**

In accordance with 40 CFR 60.62(c), the permittee shall not cause to be discharged into the atmosphere from any affected facility any gases which exhibit 10% opacity, or greater. Opacity shall be determined using the procedures specified in IDAPA 58.01.01.625 (Rules for the Control of Air Pollution in Idaho).

[PTC No. 005-00004, Permit Condition 1.2, 1/29/99]

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The permittee shall record the pressure drop across each baghouse on a weekly basis. The pressure drop shall be recorded as inches of water ("H<sub>2</sub>O"), in a log, kept at the facility for the most recent two year period. The log shall be made available to the Department representatives upon request.

[PTC No. 005-00004, Permit Condition 3.1, 1/29/99]

**3.2 Reasonable Control Measures**

The permittee shall monitor and record in a log, during operation, the periodic method(s) used to reasonably control emissions from this facility. The log shall include the type of control used (i.e., water, environmentally safe chemical dust suppressants, etc.), as well as the circumstances under which no controls are used. The most recent two years' compilation of data shall be kept on site and be available to the Department representatives upon request.

[PTC No. 005-00004, Permit Condition 3.2, 1/29/99]

**3.3 Clinker Production**

The permittee shall monitor and record the amount of clinker produced by each kiln daily. The amount of clinker produced shall be recorded as tons per day, in a log, and kept at the facility for the most recent two year period. The log shall be made available to the Department representatives upon request.

[PTC No. 005-00004, Permit Condition 3.3, 1/29/99]

**4. Operating Requirements****4.1 Reasonable Control of Fugitive Emissions**

All reasonable precautions shall be taken to prevent particulate matter from becoming airborne as required in IDAPA 58.01.01.651. In determining what is reasonable, considerations will be given to factors such as the proximity of dust-emitting operations to human habitations and/or activities and atmospheric conditions, which might affect the movement of PM. Some of the reasonable precautions include, but are not limited to, the following:

- 4.1.1 Use, where practical, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of lands;
- 4.1.2 Application, where practical, of asphalt, oil, water or suitable chemicals to, or covering of dirt roads, material stockpiles, and other surfaces which can create dust;
- 4.1.3 Installation and use, where practical, of hoods, fans and fabric filters or equivalent systems to enclose and vent the handling of dusty materials. Adequate containment methods should be employed during sandblasting or other operations;
- 4.1.4 Covering, where practical, of open-bodied trucks transporting materials likely to give rise to airborne dusts;
- 4.1.5 Paving of roadways and their maintenance in a clean condition, where practical; or
- 4.1.6 Prompt removal of earth or other stored material from streets, where practical.

[PTC No. 005-00004, Permit Condition 2.1, 1/29/99]

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The permittee shall install, calibrate, maintain, and operate, in accordance with manufacturer specifications, equipment to continuously measure the pressure differential across the air pollution control equipment.

[PTC No. 005-00004, Permit Condition 2.2, 1/29/99]

**4.3 Operations and Maintenance Manual Requirements**

Within 60 days after startup, the permittee shall have developed an Operations and Maintenance (O&M) manual for each of the baghouses listed in Permit Condition 1.1 which describes the procedures that will be followed to comply with General Provision 2 and the air pollution control device requirements contained in this permit. The manual shall remain on site at all times and shall be available to the Department representatives upon request.

[PTC No. 005-00004, Permit Condition 2.3, 1/29/99]

**4.4 Pressure Drop Across Air Pollution Control Device**

The pressure drop across the air pollution control device shall be maintained within the manufacturer and O&M manual's specifications. Documentation of both the manufacturer and O&M manual's operating pressure drop specifications shall remain on site at all times and shall be available to the Department representatives upon request.

[PTC No. 005-00004, Permit Condition 2.4, 1/29/99]

**4.5 Process Rates**

The clinker coolers shall process no more than the ton per hour on a monthly average basis of the kiln. The clinker coolers shall process no more than the annual production of the kilns.

**4.6 Baghouse Specifications**

Each baghouse shall be operated and maintained in accordance with Ash Grove's Dust Collector Maintenance Plan. This plan will be made available to Department representatives upon request.

**4.7 Baghouse Maintenance**

Maintenance to each baghouse shall be performed if visible emissions from each baghouse vent exceeds 5% opacity, as determined using the Department's "Procedure's Manual for Air Pollution Control".

**5. Reporting Requirements****5.1 Certification of Documents**

All documents, including but not limited to, records, supporting information, and monitoring data submitted to the Department shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the documents are true, accurate, and complete.

[PTC No. 005-00004, Permit Condition 4.1, 1/29/99]

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**5.2**      **Records**

The permittee shall record the information requested in Permit Conditions 3.1, 3.2, 3.3, and 3.4. These records shall be maintained on file by the permittee for a minimum period of two years and made available to Department representatives upon request.

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**11. CLINKER RECLAIM****1. Source Description****1.1 Process Description**

The clinker reclaim process transfers clinker from the clinker storage area, and clinker storage silos to the No. 1, No. 2, and No. 3 clinker feed bins.

**1.2 Control Description**

Emissions associated with the transfer points from the clinker storage area, and from the clinker silos (No. 1, No. 2, and No. 3), to the No. 3 clinker reclaim belt, including transfers to and from the No. 1 and No. 2 clinker reclaim belts, are controlled by an enclosure and two baghouses (BH4 and BH5). Emissions associated with all clinker transfer points from the No. 3 reclaim belt to the Nos. 1, 2, and 3 clinker feed bins, including transfers to and from the No. 3 clinker elevator and the clinker drag chain are controlled by baghouse BH6. Please note, baghouse BH4 is an existing baghouse that was previously used to control emissions from the clinker reclaim belts. Baghouse BH5 is being added to supplement BH4 for these process points.

**1.3 Equipment Specifications****1.3.1 Clinker Reclaim Belt No. 1****1.3.2 Clinker Reclaim Belt No. 2****1.3.3 Clinker Reclaim Belt No. 3****1.3.4 No. 3 Elevator****1.3.5 Clinker Bin Belt****1.3.6 Baghouse 4 (BH4)**

Manufacturer: Mikro D Pulsair  
Model: 36 S8 20  
Air-to-Cloth Ratio: 9.4-1

**1.3.7 Baghouse 5 (BH5)**

Manufacturer: ICA  
Model: 2-800AE  
Air-to-Cloth Ratio: 4.0-1

**1.3.8 Baghouse (BH6)**

Manufacturer: Micro D Pulsair  
Model: 30-8  
Air-to-Cloth Ratio: 4.13-1



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**2. Emission Limits****2.1 BH4, BH5, and BH**

2.1.1 The PM and PM<sub>10</sub> particle matter from BH4, BH5, and BH6 stacks shall not exceed the pound per hour or ton per year values listed for each in Appendix A of this permit

2.1.2 Visible emissions from each baghouse stack shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60-minute period as required in IDAPA 58.01.01.625 and as determined using the Department's "Procedure's Manual for Air Pollution Control".

**2.2 Fugitive Emissions**

2.2.1 Fugitive emissions of PM and PM<sub>10</sub> shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651, and shall not exceed the pound per hour or ton per year values listed in Appendix B of this permit.

**2.3 Clinker Storage, Conveyor Transfer Points, and Bulk Loading and Unloading Systems Opacity Limit**

In accordance with 40 CFR 60.62(c), the permittee shall not cause to be discharged into the atmosphere from any affected facility any gases which exhibit 10% opacity, or greater. Opacity shall be determined using the procedures specified in IDAPA 58.01.01.625 (Rules for the Control of Air Pollution in Idaho).

[PTC No. 005-00004, Permit Condition 1.2, 1/29/99]

**3. Monitoring Requirements****3.1 Baghouse Pressure Drop**

The permittee shall record the pressure drop across each baghouse on a weekly basis. The pressure drop shall be recorded as inches of water ("H<sub>2</sub>O"), in a log, kept at the facility for the most recent two year period. The log shall be made available to the Department representatives upon request.

[PTC No. 005-00004, Permit Condition 3.1, 1/29/99]

**3.2 Reasonable Control Measures**

The permittee shall monitor and record in a log, during operation, the periodic method(s) used to reasonably control emissions from this facility. The log shall include the type of control used (i.e., water, environmentally safe chemical dust suppressants, etc.), as well as the circumstances under which no controls are used. The most recent two years' compilation of data shall be kept on site and be available to the Department representatives upon request.

[PTC No. 005-00004, Permit Condition 3.2, 1/29/99]

**3.3 Clinker Reclaim**

The permittee shall monitor and record the amount of cement processed by finish grinding Mills No. 1, No. 2, and No. 3 to demonstrate compliance with Permit Condition 4.5. The process rate for each mill shall be recorded as tons per day (T/day), in a log, and kept at the facility for the most recent two year period. The log shall be made available to the Department representatives upon request.

[PTC No. 005-00004, Permit Condition 3.4, 1/29/99]

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**3.4 Pressure Drop**

The permittee shall record the pressure drop across BH4, BH5, and BH6 weekly and visual observations daily.

**4. Operating Requirements****4.1 Reasonable Control of Fugitive Emissions**

All reasonable precautions shall be taken to prevent particulate matter from becoming airborne as required in IDAPA 58.01.01.651. In determining what is reasonable, considerations will be given to factors such as the proximity of dust-emitting operations to human habitations and/or activities and atmospheric conditions, which might affect the movement of particulate matter. Some of the reasonable precautions include, but are not limited to, the following:

- 4.1.1 Use, where practical, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of lands;
- 4.1.2 Application, where practical, of asphalt, oil, water or suitable chemicals to, or covering of dirt roads, material stockpiles, and other surfaces which can create dust;
- 4.1.3 Installation and use, where practical, of hoods, fans and fabric filters or equivalent systems to enclose and vent the handling of dusty materials. Adequate containment methods should be employed during sandblasting or other operations;
- 4.1.4 Covering, where practical, of open-bodied trucks transporting materials likely to give rise to airborne dusts;
- 4.1.5 Paving of roadways and their maintenance in a clean condition, where practical; or
- 4.1.6 Prompt removal of earth or other stored material from streets, where practical.

[PTC No. 005-00004, Permit Condition 2.1, 1/29/99]

**4.2 Monitoring Equipment**

The permittee shall install, calibrate, maintain, and operate, in accordance with manufacturer specifications, equipment to continuously measure the pressure differential across the air pollution control equipment.

[PTC No. 005-00004, Permit Condition 2.2, 1/29/99]

**4.3 Operations and Maintenance Manual Requirements**

Within 60 days after startup, the permittee shall have developed an O&M manual for each of the baghouses listed in Permit Condition 1.1 which describes the procedures that will be followed to comply with General Provision 2 and the air pollution control device requirements contained in this permit. The manual shall remain on site at all times and shall be available to the Department representatives upon request.

[PTC No. 005-00004, Permit Condition 2.3, 1/29/99]

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The pressure drop across the air pollution control device shall be maintained within the manufacturer and O&M manual's specifications. Documentation of both the manufacturer and O&M manual's operating pressure drop specifications shall remain on site at all times and shall be available to the Department representatives upon request.

[PTC No. 005-00004, Permit Condition 2.4, 1/29/99]

**4.5 Clinker Reclaim Process Rates**

The clinker reclaim process rates shall not exceed 77 T/hr on a monthly average basis, and 382,737 tons of cement per any consecutive 12-month period (382,737 T/yr).

[PTC No. 005-00004, Permit Condition 2.6, 1/29/99]

**4.6 Baghouse Specifications**

Each baghouse shall be operated and maintained in accordance with Ash Grove's Dust Collector Maintenance Plan. This plan will be made available to Department representatives upon request.

**4.7 Baghouse Maintenance**

Maintenance to each baghouse shall be performed if visible emissions from each baghouse vent exceeds 5% opacity, as determined using the Department's "Procedure's Manual for Air Pollution Control".

**5. Reporting/Recordkeeping Requirements**

The permittee shall record the information requested in Permit Conditions 3.1, 3.2, 3.3, 3.4, and 3.5. These records shall be maintained on file by the permittee for a minimum period of two years and made available to Department representatives upon request.

**5.1 Certification of Documents**

All documents, including but not limited to, records, supporting information, and monitoring data submitted to the Department shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the documents are true, accurate, and complete.

[PTC No. 005-00004, Permit Condition 4.1, 1/29/99]

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The finish grinding Mills No. 1, No. 2, and No. 3 process clinker and gypsum into cement. The mills receive material from the clinker bins and the gypsum bin by conveyor. The two materials are ground, and conveyed by the elevator to the separator. (The No. 1 and No. 2 Mills go to the No. 1 Separator, and the No. 3 Mill uses the No. 2 Separator). The separator removes oversized particles and reintroduces them to the mill, and transfers the cement of appropriate size to the cement cooler. The No. 1 and No. 2 mills utilize two cement coolers in series (No. 1 and No. 2) the No. 3 mill has its own cement cooler, (No. 3). Cement is transferred from the cement cooler by FK pump to one of 19 storage silos.

**1.2 Control Description**

Emissions associated with the transfer of material to and from the following:

Mill No. 1 and Mill No. 2;

No. 1 Cement Elevator;

No. 1 Separator; and

No. 1 and No. 2 Cement Coolers (in series)

are controlled by Baghouse 7 (BH7) and through enclosure in a building. Emissions associated with the transfer of gypsum to the crane and onto the gypsum feeder are controlled only by an enclosure.

Emissions associated with the transfer of material to and from the following:

Mill No. 3;

No. 2 Cement Elevator;

No. 2 Separator; and

(No. 3) Cement Cooler

are controlled by BH8 and through enclosure in a building. Emissions associated with the transfer of cement to cement silos No. 1 through No. 14 are controlled by BH9. Emissions associated with the transfer of cement to cement silos No. 21 through No. 25 are controlled by BH3.

**1.3 Equipment Specifications****1.3.1 Mill No. 1**

Manufacturer:

FL Smidth

Model:

2411 Unidan

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**1.3.2 Mill No. 2**

Manufacturer: FL Smidth  
Model: 2411 Unidan

**1.3.3 Separator No. 1**

Manufacturer: Raymond  
Model: NC 4534

**1.3.4 Mill No. 3**

Manufacturer: FL Smidth  
Model: 2411 Unidan

**1.3.5 Separator No. 1**

Manufacturer: Sturtevant  
Model: 14 AS

**1.3.6 Baghouse 7 (BH7)**

Manufacturer: Buell Norblo  
Model: BA 2 Size 312A  
Air-to-Cloth Ratio: 1.91  
Pressure Drop: 5.00 inches H<sub>2</sub>O

**1.3.7 Baghouse 8 (BH8)**

Manufacturer: Buell Norblo  
Model: 390AM Series 39  
Air-to-Cloth Ratio: 1.87  
Efficiency: 95%

**1.3.8 Baghouse 9 (BH9)**

Manufacturer: Pangborn  
Model: C 160 CM  
Air-to-Cloth Ratio: 1.742

**2. Emission Limits****2.1 Baghouses BH7, BH8, BH9**

2.1.1 The PM and PM<sub>10</sub> from BH7, BH8, and BH9 shall not exceed the pound per hour or ton per year values listed for each in Appendix A of this permit.

2.1.2 Visible emissions from each baghouse stack that is listed in Section 1.3 shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60 minute period as required in IDAPA 58.01.01.625 and as determined using the Department's "Procedure's Manual for Air Pollution Control".

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**2.2** Fugitive Emissions

- 2.2.1 The PM and PM<sub>10</sub> shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651, and shall not exceed the pound per hour or ton per year values listed in Appendix B of this permit.

**3.** Monitoring Requirements

- 3.1 The permittee shall record the pressure drop across BH7, BH8, and BH9 weekly and visual observations daily.
- 3.2 The permittee shall record the amount of cement processed by each mill daily.

**4.** Operating Requirements

**4.1** Process Rates

- 4.1.1 Each of three finish mills shall process no more than 77 tons per hour on a monthly average basis, and 382,737 tons of total cement annually.

**4.2** Baghouse Specifications

Each baghouse shall be operated and maintained in accordance with Ash Grove's Dust Collector Maintenance Plan. This plan will be made available to Department representatives upon request.

**4.3** Baghouse Maintenance

Maintenance to each baghouse shall be performed if visible emissions from each baghouse vent exceeds 5% opacity, as determined using the Department's "Procedure's Manual for Air Pollution Control".

**5.** Reporting Requirements

The permittee shall record, in a daily report, the information requested in Permit Conditions 3.1 and 3.2. These records shall be maintained on file by the permittee for a minimum period of two years and made available to the Department representatives upon request.

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**13. CEMENT LOADOUT****1. Source Description****1.1 Process Description**

Cement is transferred from storage silos to railcar, truck, or packaging by a combination of screws, airslides, and elevators.

**1.2 Control Description**

Emissions associated with truck loadout and truck loading tanks A, B and C/D and the transfer points within those parameters are controlled by BH10. All other cement activity between the FK pumps and truck loading tanks are controlled by enclosure and Baghouse No. 9.

**1.3. Equipment Specifications**

1.3.1 Baghouse 9 (For specifications, see Finish Grinding, Section 1.3)

1.3.2 Baghouse 10

Manufacturer:	Mikro Pulsaire
Model:	Type 30 8
Air-to-Cloth Ratio:	2.68

**2. Emission Limits****2.1 Baghouse 9 (BH9) and Baghouse 10 (BH10)**

2.1.1 The PM and PM<sub>10</sub> particle matter from BH9 and BH10 shall not exceed the amount the pound per hour or ton per year values listed for each in Appendix A of this permit.

2.1.2 Visible emissions from BH10 stack shall not exceed 20% opacity for a period or periods aggregating more than three minutes in and 60-minute period as required in IDAPA 58.01.01.625 and as determined using the Department's "Procedure's Manual for Air Pollution Control".

**2.2 Fugitive Emissions**

2.2.1 Fugitive emissions of PM and PM<sub>10</sub> shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651, and shall not exceed the pound per hour or ton per year values listed in Appendix B of this permit.

**3. Monitoring Requirements**

3.1 The permittee shall record the pressure drop, in inches of water, of BH10 weekly and visual observations daily.

3.2 The permittee shall record the daily amount of cement, in tons, transferred from rail loadout.

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3.3 The permittee shall record the daily amount of cement, in tons, transferred from truck loadout.

3.4 The permittee shall record the daily amount of cement shipped in bags in tons.

**4. Operating Requirements**

**4.1 Loadout Rates**

4.1.1 Rail loadout shall handle no more than 200 tons of cement per hour.

4.1.2 Truck loadout shall handle no more than 225 tons of cement per hour.

4.1.3 Packaging of cement into bags shall not exceed 75 tons of cement per hour.

4.1.4 No more than 382,737 tons of cement on an average annual basis will be shipped from the Ash Grove facility.

**4.2 Baghouse Specifications**

Each baghouse shall be operated and maintained in accordance with Ash Grove's Dust Collector Maintenance Plan. This plan will be made available to Department representatives upon request.

**4.3 Baghouse Maintenance**

Maintenance to each baghouse shall be performed if visible emissions from each baghouse vent exceeds 5% opacity, as determined using the Department's "Procedure's Manual for Air Pollution Control".

**5. Reporting/Recordkeeping Requirements**

The permittee shall record, in a daily report, the information requested in Permit Conditions 3.1, 3.2, 3.3, and 3.4. These records shall be maintained on file by the permittee for a minimum period of two years and made available to Department representatives upon request.



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**14. COAL HANDLING****1. Source Description****1.1 Process Description**

Coal handling involves the receiving, handling, processing and storage of coal.

**1.2 Control Description**

Emissions associated with the transfer points from the dumping of coal to the coal elevator, including transfers to and from the coal hopper, coal belt, and coal elevator, are uncontrolled. Emissions associated with all transfers points from the coal silo to the No. 2 coal mill, including transfers to and from the No. 1 and No. 2 coal mills, are controlled by being enclosed.

**1.3 Equipment Specifications****1.3.1 Coal Mill No. 1**

Manufacturer: Raymond  
Model: 442

**1.3.2 Coal Mill No. 2**

Manufacturer: Raymond  
Model: 423A

**2. Emission Limits****2.1 Fugitive Emissions**

Fugitive emissions of PM and PM<sub>10</sub> shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651, and shall not exceed the pound per hour or ton per year values listed in Appendix B of this permit.

**3. Monitoring Requirements**

The permittee shall record, in tons per hour and tons per year, the amount of coal burned in the kiln systems.

**4. Operating Requirements**

The coal hopper shall handle no more than 280 tons of coal per hour on an average hourly basis and 70,000 tons of coal per year.

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**5. Reporting/Recordkeeping Requirements**

The permittee shall record, in a daily report, the information requested in Permit Condition 3. These records shall be maintained on file by the permittee for a minimum period of two years and made available to Department representatives upon request.

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**15. CEMENT KILN DUST HANDLING****1. Source Description****1.1 Process Description**

Cement kiln dust handling involves the transfer of cement kiln dust (CKD) from the No. 1 kiln multiclone and ESP and the No. 2 kiln multiclone and ESP to either a 66-ton capacity bin where it awaits reintroduction to the kiln, or CKD waste storage and leaching tank.

**1.2 Control Description**

Emissions associated with the transfer of CKD by the loader to waste storage are uncontrolled. Emissions associated with the transfer of CKD from the No. 2 kiln multiclone to the screw, from the screw to the elevator, and from the elevator to a second screw are controlled by being enclosed. Dust emissions resulting from the transfer of the CKD from the No. 1 multiclone elevator, through the screws, and into the bin will be controlled by a baghouse (BH11) mounted atop the 66-ton bin.

**1.3 Equipment Specifications****1.3.1 Baghouse No. 11 (BH11)**

Manufacturer:	Micro-Pulsaire
Model Number:	Type 30-8
Equipment Number:	50-122-000
Grain Loading:	0.01 gr/dscf (guaranteed)
Flowrate:	940 dscfm

**2. Emission Limits****2.1 Baghouse 11 (BH11)**

2.1.1 The PM and PM<sub>10</sub> from BH11 shall not exceed the pound per hour or ton per year values listed in Appendix A of this permit.

[PTC No. 005-00004, Permit Condition 1.1, 5/17/99]

**2.1.2 Baghouse BH11 and Conveyor Transfer Point Opacity Limit**

In accordance with 40 CFR 60.62(c), the permittee shall not cause to be discharged into the atmosphere from baghouse BH11 stack, any new screw conveyors associated with the dust scoop system, and the dust feed spout (bulk loading systems) any gases which exhibit 10% opacity, or greater. Opacity shall be determined using the procedures specified in IDAPA 58.01.01.625 (Rules for the Control of Air Pollution in Idaho).

[PTC No. 005-00004, Permit Condition 1.2, 5/17/99]

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Visible emissions from any stack, vent, or other functionally equivalent opening shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60 minute period as required in IDAPA 58.01.01.625. Opacity shall be determined using IDAPA 58.01.01.625.

[PTC No. 005-00004, Permit Condition 1.3, 5/17/99]

**2.2 Fugitive Emissions**

Fugitive emissions of PM and PM<sub>10</sub> shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651, and shall not exceed the pound per hour or ton per year values listed in Appendix B of this permit.

**3. Monitoring Requirements****3.1 Baghouse Pressure Drop**

The permittee shall record the pressure drop across baghouse (BH11) on a weekly basis and visual observations daily. The pressure drop shall be recorded as inches of water ("H<sub>2</sub>O"), in a log, kept at the facility for the most recent two year period. The log shall be made available to the Department representatives upon request.

[PTC No. 005-00004, Permit Condition 3.1, 5/17/99]

3.2 The permittee shall record the amount, in tons per day, of CKD transferred to CKD waste storage.

**4. Operating Requirements****4.1 CKD Waste Storage**

CKD waste storage shall receive no more than six tons of CKD per hour and 4,575 tons of CKD per year.

**4.2 Monitoring Equipment**

The permittee shall install, calibrate, maintain, and operate, in accordance with manufacturer specifications, equipment to continuously measure the pressure differential across the air pollution control equipment.

[PTC No. 005-00004, Permit Condition 2.1, 5/17/99]

**4.3 Operations and Maintenance Manual Requirements**

Within 60 days after startup, the permittee shall have developed an O&M manual for the baghouse (BH11) which describes the procedures that will be followed to comply with General Provision 2 and the air pollution control device requirements contained in this permit. The manual shall remain on site at all times and shall be available to the Department representatives upon request.

[PTC No. 005-00004, Permit Condition 2.2, 5/17/99]

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**4.4 Pressure Drop Across Air Pollution Control Device**

The pressure drop across the air pollution control device shall be maintained within the manufacturer and O&M manual's specifications.

Documentation of both the manufacturer and O&M manual's operating pressure drop specifications shall remain on site at all times and shall be available to the Department representatives upon request.

[PTC No. 005-00004, Permit Condition 2.3, 5/17/99]

**5. Reporting Requirements**

**5.1 Daily Report**

The permittee shall record, in a daily report, the information requested in Permit Conditions 3.1 and 3.3. These records shall be maintained on file by the permittee for a minimum period of two years and made available to Department representatives upon request.

**5.2 Certification of Documents**

All documents, including but not limited to, records, supporting information, and monitoring data submitted to the Department shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the documents are true, accurate, and complete.

[PTC No. 005-00004, Permit Condition 4.1, 5/17/99]

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**16. UNPAVED ROADS**

**1. Source Description**

**1.1 Process Description**

Routine vehicular traffic on unpaved roads

**1.2 Control Description**

Unpaved roadways are water sprayed on a regular basis.

**2. Emission Limits**

**2.1 Fugitive Emissions**

The PM and PM<sub>10</sub> shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651, and shall not exceed the pound per hour or ton per year values listed in Appendix B of this permit.

**3. Monitoring Requirements**

The permittee shall record on a bi-annual basis the number of applications of chemical dust suppressants on unpaved roads.

**4. Operating Requirements**

4.1 At all times, fugitive emissions shall be reasonably controlled by, but not limited to, the following methods, and as required in IDAPA 58.01.01.650 and 651.

4.1.1 Using water sprays, chemicals, and dust suppressants on the plant property and unpaved roads.

**5. Reporting Requirements**

The permittee shall record, in a daily report, the information requested in Permit Condition 3. This report shall be maintained on file by the permittee for a minimum period of two years and made available to Department representatives upon request.

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**17. PAVED ROADS**

**1. Source Description**

**1.1 Process Description**

Routine vehicular traffic on paved plant roads.

**1.2 Control Description**

Paved roadways in the plant are cleaned by a street sweeper on a regular basis.

**2. Emission Limits**

**2.1 Fugitive Emissions**

The PM and PM<sub>10</sub> shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651, and shall not exceed the pound per hour or ton per year values listed in Appendix B of this permit.

**3. Operating Requirements**

**3.1** At all times, fugitive emissions shall be reasonably controlled by, but not limited to, the following methods, and as required in IDAPA 58.01.01.650 and 651.

**3.1.1** Routinely cleaning and maintaining all paved roads.

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**18. APPENDIX A – EMISSION LIMITS****Emission Limits <sup>a</sup> – Hourly (lb/hr) and Annual <sup>b</sup> (ton/yr)**

SOURCE DESCRIPTION	PM		PM <sub>10</sub>		SO <sub>2</sub>		NO <sub>x</sub>		VOC		CO		TOTAL LEAD		BAP	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr <sup>c</sup>	ton/yr	lb/hr	ton/yr	lb/hr <sup>c</sup>	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
Kiln No. 1	11.61	50.83	9.86	43.21	24	100	144	576	5.92	25.9	550	937.7	0.27	1.08	8.5E-03	3.4E-02
Kiln No. 2	16.87	73.91	14.34	62.82	24	100	193	751	6.96	30.5	650	1103.2	0.31	1.24	1.0E-02	4.0E-2
Baghouse No. 1 (BH1)	2.26	9.91	1.92	8.42												
Baghouse No. 2 (BH2)	1.44	0.32	1.22	0.27												
Baghouse No. 3 (BH3)	0.51	2.14	0.44	1.82												
Baghouse No. 4 (BH4)	0.32	0.61	0.27	0.52												
Baghouse No. 5 (BH5)	0.91	1.73	0.77	1.47												
Baghouse No. 6 (BH6)	0.63	2.78	0.54	2.36												
Baghouse No. 7 (BH7)	1.59	5.21	1.35	4.43												
Baghouse No. 8 (BH8)	2.09	6.86	1.78	5.83												
Baghouse No. 9 (BH9)	0.31	0.67	0.26	0.57												
Baghouse No. 10 (BH10)	2.82	9.26	2.40	7.87												
Baghouse No. 11 (BH11)			0.23	1.00												

Scientific notation is represented with □E□s. 1.0E-4 equals 1.0x10<sup>-4</sup> or 0.0001.

- <sup>a</sup> As determined by a pollutant specific U.S. EPA reference method, the Department approved alternative, or as determined by the Department emission estimation methods used in this permit analysis.
- <sup>b</sup> As determined by multiplying the actual or allowable (if actual is not available) pound per hour (lb/hr) emission rate by the allowable hours per year that the process(es) operate, or by actual annual production.
- <sup>c</sup> 1-hour average
- <sup>d</sup> 12-month rolling average



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Date Expires: December 8, 2003

**19. APPENDIX B – FUGITIVE EMISSION LIMITS****Fugitive Emission Limits\* -- Hourly\* (lb/hr) and Annual<sup>b</sup> (ton/yr)**

Source Description	PM		PM <sub>10</sub>		SO <sub>2</sub>		NO <sub>x</sub>		VOC		CO		TOTAL LEAD		BAP	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
Drilling, Blasting, Dozing	5.39	29.34	1.78	3.09												
Limestone Receiving, Crushing, and Storage	23.59	17.75	10.51	7.82												
Iron Ore Receiving, Crushing, and Storage	2.26	0.04	1.08	0.02												
Silica Receiving, Crushing, and Storage	10.18	2.63	4.52	1.18												
Gypsum Receiving, Crushing, and Storage	22.86	1.18	10.21	0.54												
Storage Piles	5.39	33.25	1.78	3.29												
Silo Withdrawal, Conveying, and Storage	0.42	1.48	0.19	0.68												
No. 1 & No. 2 Clinker Coolers and Clinker Handling System	33.25	16.84	7.47	6.75												
Clinker Reclaim	0.17	0.77	0.09	0.38												
Finish Grinding And Associated Handling	3.19	5.24	1.53	2.41												
Cement Loadout	15.83	4.01	7.91	2.00												
Coal Handling	5.61	0.74	1.40	0.18												
Cement Kiln Dust Handling	1.81	1.59	0.90	0.80												
Unpaved Roads	19.97	16.58	7.19	5.97												
Paved Roads	46.52	16.12	10.01	3.47												

\* As determined from the Department's emission estimation methods used in Ash Grove Cement Tier II operating permit application analysis.

\* As determined by multiplying the actual or allowable (if actual is not available) pound per hour (lb/hr) emission rate by the allowable hours per year that the process(es) operate, or by actual annual production.

**AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No. 005-00004****Permittee:** Ash Grove Cement Company**Date Issued:** November 27, 2002**Location:** Inkom, Idaho**Date Expires:** December 8, 2003**20. PERMIT GENERAL PROVISIONS**

1. All emissions authorized herein shall be consistent with the terms and conditions of this permit. The emission of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit and the *Rules for the Control of Air Pollution in Idaho*, and the Environmental Protection and Health Act, Idaho Code 39-101 et seq.
2. The permittee shall at all times (except as provided in the *Rules for the Control of Air Pollution in Idaho*) maintain and operate in good working order all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable laws for the control of air pollution.
3. The permittee shall allow the Director, and/or his authorized representative(s), upon the presentation of credentials:
  - To enter upon the permittee's premises where an emissions source is located, or in which any records are required to be kept under the terms and conditions of this permit; and
  - At reasonable times, to have access to and copy any records required to be kept under the terms and conditions of this permit, to inspect any monitoring methods required in this permit, and to require stack emissions testing (i.e., performance tests) in conformance with state-approved or accepted EPA procedures when deemed appropriate by the Director.
4. Except for data determined to be confidential under Section 9-342A *Idaho Code*, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the appropriate regional office of the Department of Environmental Quality.
5. Nothing in this permit is intended to relieve or exempt the permittee from compliance with any applicable federal, state, or local law or regulation, except as specifically provided herein.
6. In the event of any change in control or ownership of source(s) from which the authorized emissions emanate, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter; a copy of which shall be forwarded to the Director.
7. This permit shall be renewable on the expiration date, provided the permittee submits any and all information necessary for the Director to determine the amount and type of air pollutants emitted from the equipment for which this permit is granted. Failure to submit such information within 60 days after receipt of the Director's request shall cause the permit to become void.
8. The Director may require the permittee to develop a list of operation and maintenance procedures to be approved by the Department. Such list of procedures shall become a part of this permit by reference, and the permittee shall adhere to all of the operation and maintenance procedures contained therein.
9. Performance tests (i.e., air emissions source tests) conducted pursuant to testing requirements in this permit must be conducted in accordance with IDAPA 58.01.01.157. Such testing shall not be conducted on weekends or state holidays unless the permittee obtains prior Department approval.

The permittee shall submit to the Department for approval a proposed test date for each performance test required by this permit at least 15 days prior to each respective test date (including each test date for periodic tests such as, for example, annual tests).

**AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No. 005-00004****Permittee:** Ash Grove Cement Company**Date Issued:** November 27, 2002**Location:** Inkorn, Idaho**Date Expires:** December 8, 2003

The permittee shall promptly notify the Department of any change in the proposed test date and shall provide at least five workdays advanced notice prior to conducting any rescheduled test, unless the Department approves a shorter notice period.

Within 30 days of the date on which a performance test required by this permit is concluded, the permittee shall submit to the Department a performance test report for the respective test. The performance test report shall include any and all process operating data required to be recorded during the test period as well as the test results, raw test data, and associated documentation.

The maximum allowable source operating rate shall be limited to 120% of the average operating rate attained during the most recent performance test conducted pursuant to this permit, for which a test protocol has been granted prior approval by the Department, which demonstrated compliance with the respective pollutant emission limit unless; (1) a more restrictive operating limit is specified elsewhere in this permit or; (2) at such an operating rate, emissions would exceed any emission limit(s) set forth in this permit.

10. The provisions of this permit are severable, and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.